# Refine Search

## Search Results -

| Terms | Documents |
|---|---|
| L11 and fitness adj function and mathematical$4 and solution adj set | 1 |

**Database:**
US Pre-Grant Publication Full-Text Database
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EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

**Search:**
L12

[Refine Search]

[Recall Text ⬍]  [Clear]  [Interrupt]

## Search History

**DATE:** Monday, December 20, 2004   Printable Copy   Create Case

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| *DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=NO; OP=OR* | | | |
| L12 | L11 and fitness adj function and mathematical$4 and solution adj set | 1 | L12 |
| L11 | 703/2.ccls. | 1253 | L11 |
| L10 | L9 and fitness adj function and mathematical$4 and solution adj set | 1 | L10 |
| L9 | 702/19.ccls. | 1646 | L9 |
| L8 | L7 and fitness adj function and mathematical$4 and solution adj set | 0 | L8 |
| L7 | 706/20.ccls. | 528 | L7 |
| L6 | 6,282,527.pn. | 2 | L6 |
| L5 | evolution$4 and user and fitness adj function and solution adj set and mathematical$4 | 5 | L5 |
| L4 | L1 and evolution$4 and user and fitness adj function and solution adj set | 4 | L4 |
| L3 | L1 and fitness adj function and mathematical$4 and solution adj set | 1 | L3 |
| L2 | L1 and fitness adj function and mathematical$4 | 30 | L2 |
| L1 | 706/13.ccls. | 233 | L1 |

END OF SEARCH HISTORY

**≋Dictionary.com**    | a priori | **Search**

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<u>Get the Most Popular Sites for "a priori"</u>

# 2 entries found for *a priori*.

**a·pri·o·ri** ◁ ▣ **Pronunciation Key** (ä′ prē-ôr′ē, -ōr′ē, ā′pr ī-ôr′ī, -ōr′ī)
*adj.*

1. Proceeding from a known or assumed cause to a necessarily related effect; deductive.
2. 
   a. Derived by or designating the process of reasoning without reference to particular facts or experience.
   b. Knowable without appeal to particular experience.
3. Made before or without examination; not supported by factual study.

[Medieval Latin ā prioōrī : Latin ā, *from* + Latin priōrī, ablative of prior, *former.*]

**a′ pri·o′ ri** *adv.*
**a′ pri·or′ i·ty** (-ôr′ ī-tē, -ōr′ -) *n.*

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<u>Source</u>: *The American Heritage® Dictionary of the English*

*Language, Fourth Edition*
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**a priori**

adj 1: involving deductive reasoning from a general principle
to a necessary effect; not supported by fact; "an a priori
judgment" [ant: a posteriori] 2: based on hypothesis or theory
rather than experiment adv : derived by logic, without
observed facts [ant: a posteriori]

Source: *WordNet ® 2.0, © 2003 Princeton University*

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# Refine Search

## Search Results -

| Terms | Documents |
|---|---|
| evolution$4 and user and fitness adj function and solution adj set and mathematical$4 | 5 |

**Database:**
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
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EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

**Search:**  L5

Refine Search

Recall Text     Clear          Interrupt

## Search History

**DATE:   Monday, December 20, 2004     Printable Copy     Create Case**

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| | DB=PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD; PLUR=NO; OP=OR | | |
| L5 | evolution$4 and user and fitness adj function and solution adj set and mathematical$4 | 5 | L5 |
| L4 | L1 and evolution$4 and user and fitness adj function and solution adj set | 4 | L4 |
| L3 | L1 and fitness adj function and mathematical$4 and solution adj set | 1 | L3 |
| L2 | L1 and fitness adj function and mathematical$4 | 30 | L2 |
| L1 | 706/13.ccls. | 233 | L1 |

END OF SEARCH HISTORY

# Hit List

| Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs |

| Generate OACS |

**Search Results** - Record(s) 1 through 30 of 30 returned.

☐  1.  Document ID:  US 20040254901 A1

**Using default format because multiple data bases are involved.**

```
L2: Entry 1 of 30                          File: PGPB                    Dec 16, 2004

PGPUB-DOCUMENT-NUMBER: 20040254901
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040254901 A1


TITLE: Methods and systems for interactive evolutionary computing (IEC)

PUBLICATION-DATE: December 16, 2004


INVENTOR-INFORMATION:
NAME                            CITY           STATE    COUNTRY      RULE-47
Bonabeau, Eric                  Cambridge      MA       US
Anderson, Carl                  Cambridge      MA       US
Orme, Belinda                   Cambridge      MA       US
Funes, Pablo                    Cambridge      MA       US
Bandte, Oliver                  Cambridge      MA       US
Sullivan, Mark                  Cambridge      MA       US
Malinchek, Sergey               Cambridge      MA       US
Rothermich, Jeseph A.                                   US


US-CL-CURRENT: 706/13
```

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

☐  2.  Document ID:  US 20040153227 A1

```
L2: Entry 2 of 30                          File: PGPB                    Aug 5, 2004

PGPUB-DOCUMENT-NUMBER: 20040153227
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040153227 A1


TITLE: Fuzzy controller with a reduced number of sensors

PUBLICATION-DATE: August 5, 2004


INVENTOR-INFORMATION:
NAME                            CITY           STATE    COUNTRY      RULE-47
```

| Hagiwara, Takahide | Iwata-shi | JP |
| Ulyanov, Sergei V. | Crema | IT |
| Panfilov, Sergei A. | Crema | IT |
| Takahashi, Kazuki | Crema | IT |
| Kaneko, Chikako | Iwata-shi | JP |
| Diamante, Olga | Catania | IT |

US-CL-CURRENT: <u>701</u>/<u>40</u>; <u>706</u>/<u>13</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D- |

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☐  3.   Document ID:  US 20040030420 A1

L2: Entry 3 of 30                         File: PGPB                    Feb 12, 2004

PGPUB-DOCUMENT-NUMBER: 20040030420
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040030420 A1

TITLE: System and method for nonlinear dynamic control based on soft computing with discrete constraints

PUBLICATION-DATE: February 12, 2004

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|------|------|-------|---------|---------|
| Ulyanov, Sergei V. | Crema | | IT | |
| Panfilov, Sergei | Crema | | IT | |
| Takahashi, Kazuki | Crema | | IT | |

US-CL-CURRENT: <u>700</u>/<u>48</u>; <u>700</u>/<u>42</u>, <u>706</u>/<u>13</u>, <u>706</u>/<u>2</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D- |

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☐  4.   Document ID:  US 20030177105 A1

L2: Entry 4 of 30                         File: PGPB                    Sep 18, 2003

PGPUB-DOCUMENT-NUMBER: 20030177105
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030177105 A1

TITLE: Gene expression programming algorithm

PUBLICATION-DATE: September 18, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|------|------|-------|---------|---------|
| Xiao, Weimin | Hoffman Estates | IL | US | |
| Tirpak, Thomas Michael | Glenview | IL | US | |

US-CL-CURRENT: <u>706/13</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

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☐   5.   Document ID:  US 20030093392 A1

L2: Entry 5 of 30                          File: PGPB                    May 15, 2003

PGPUB-DOCUMENT-NUMBER: 20030093392
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030093392 A1

TITLE: System for intelligent control based on soft computing

PUBLICATION-DATE: May 15, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|------|------|-------|---------|---------|
| Ulyanov, Sergei V. | Crema | | IT | |

US-CL-CURRENT: <u>706/13</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

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☐   6.   Document ID:  US 20030093391 A1

L2: Entry 6 of 30                          File: PGPB                    May 15, 2003

PGPUB-DOCUMENT-NUMBER: 20030093391
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030093391 A1

TITLE: Combinatorial <u>fitness function</u> circuit

PUBLICATION-DATE: May 15, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|------|------|-------|---------|---------|
| Shackleford, J. Barry | Portola Valley | CA | US | |

US-CL-CURRENT: <u>706/13</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

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☐   7.   Document ID:  US 20030050902 A1

L2: Entry 7 of 30.                         File: PGPB                    Mar 13, 2003

PGPUB-DOCUMENT-NUMBER: 20030050902
PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030050902 A1

TITLE: Genetic algorithm optimization method

PUBLICATION-DATE: March 13, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|------|------|-------|---------|---------|
| Buczak, Anna L. | Croton-On-Hudson | NY | US | |
| Wang, Henry (Hui) | Piscataway | NJ | US | |

US-CL-CURRENT: 706/13

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

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☐  8.  Document ID:  US 20020095393 A1

L2: Entry 8 of 30.                     File: PGPB                  Jul 18, 2002

PGPUB-DOCUMENT-NUMBER: 20020095393
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020095393 A1

TITLE: Computer program for and method of discrete event computer simulation incorporating biological paradigm for providing optimized decision support

PUBLICATION-DATE: July 18, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|------|------|-------|---------|---------|
| McHaney, Roger | Manhattan | KS | US | |

US-CL-CURRENT: 706/13; 703/11

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

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☐  9.  Document ID:  US 6807652 B2

L2: Entry 9 of 30                      File: USPT                  Oct 19, 2004

US-PAT-NO: 6807652
DOCUMENT-IDENTIFIER: US 6807652 B2

TITLE: Method of robust semiconductor circuit products design using rational robust optimization

DATE-ISSUED: October 19, 2004

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|

McConaghy; Trent Lorne              Ottawa                            CA

US-CL-CURRENT: <u>716</u>/<u>2</u>; <u>703</u>/<u>13</u>, <u>706</u>/<u>13</u>, <u>716</u>/<u>4</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

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   ☐  10.   Document ID:  US 6634019 B1

L2: Entry 10 of 30                        File: USPT              Oct 14, 2003

US-PAT-NO: 6634019
DOCUMENT-IDENTIFIER: US 6634019 B1

TITLE: Toggling software characteristics in a fault tolerant and combinatorial
software environment system, method and medium

DATE-ISSUED: October 14, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Rice; Todd M. | Boston | MA | | |
| Bennett; Gordon E. | Cambridge | MA | | |

US-CL-CURRENT: <u>717</u>/<u>127</u>; <u>706</u>/<u>13</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

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   ☐  11.   Document ID:  US 6470261 B1

L2: Entry 11 of 30                        File: USPT              Oct 22, 2002

US-PAT-NO: 6470261
DOCUMENT-IDENTIFIER: US 6470261 B1

TITLE: Automatic freeway incident detection system and method using artificial
neural network and genetic algorithms

DATE-ISSUED: October 22, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Ng; Yew Liam | Singapore | | | SG |
| Ng; Kim Chwee | Singapore | | | SG |

US-CL-CURRENT: <u>701</u>/<u>117</u>; <u>340</u>/<u>425.5</u>, <u>340</u>/<u>901</u>, <u>340</u>/<u>905</u>, <u>701</u>/<u>301</u>, <u>706</u>/<u>13</u>, <u>706</u>/<u>15</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

☐   12.   Document ID:  US 6415272 B1

L2: Entry 12 of 30                          File: USPT                        Jul 2, 2002

US-PAT-NO: 6415272
DOCUMENT-IDENTIFIER: US 6415272 B1

TITLE: System for intelligent control based on soft computing

DATE-ISSUED: July 2, 2002

INVENTOR-INFORMATION:
NAME                              CITY        STATE      ZIP CODE      COUNTRY
Ulyanov; Sergei V.                Crema                                IT

US-CL-CURRENT: <u>706</u>/<u>2</u>; <u>706</u>/<u>10</u>, <u>706</u>/<u>13</u>, <u>706</u>/<u>903</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

☐   13.   Document ID:  US 6327582 B1

L2: Entry 13 of 30                          File: USPT                        Dec 4, 2001

US-PAT-NO: 6327582
DOCUMENT-IDENTIFIER: US 6327582 B1

TITLE: Method and system for genetic programming

DATE-ISSUED: December 4, 2001

INVENTOR-INFORMATION:
NAME                              CITY        STATE      ZIP CODE      COUNTRY
Worzel; William P.                Milan       MI         48160

US-CL-CURRENT: <u>706</u>/<u>13</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

☐   14.   Document ID:  US 6272479 B1

L2: Entry 14 of 30                          File: USPT                        Aug 7, 2001

US-PAT-NO: 6272479
DOCUMENT-IDENTIFIER: US 6272479 B1

TITLE: Method of evolving classifier programs for signal processing and control

DATE-ISSUED: August 7, 2001

INVENTOR-INFORMATION:
NAME                              CITY        STATE      ZIP CODE      COUNTRY

| Farry; Kristin Ann | Houston | TX | 77546 |
| Fernandez; Julio Jaime | Suger Land | TX | 77479 |
| Graham; Jeffrey Scott | Houston | TX | 77064 |

US-CL-CURRENT: <u>706/13</u>; <u>700/213</u>, <u>700/250</u>, <u>706/14</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

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☐  15.   Document ID:  US 6128607 A

L2: Entry 15 of 30                          File: USPT                          Oct 3, 2000

US-PAT-NO: 6128607
DOCUMENT-IDENTIFIER: US 6128607 A

TITLE: Computer implemented machine learning method and system

DATE-ISSUED: October 3, 2000

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Nordin; Peter | S-411 05 Goteborg | | | SE |
| Banzhaf; Wolfgang | 44575 Castrop-Rauxel | | | DE |

US-CL-CURRENT: <u>706/13</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

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☐  16.   Document ID:  US 6098059 A

L2: Entry 16 of 30                          File: USPT                          Aug 1, 2000

US-PAT-NO: 6098059
DOCUMENT-IDENTIFIER: US 6098059 A

TITLE: Computer implemented machine learning method and system

DATE-ISSUED: August 1, 2000

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Nordin; Peter | S-411 05 Goteborg | | | SE |

US-CL-CURRENT: <u>706/13</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

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☐  17.   Document ID:  US 6058385 A

L2: Entry 17 of 30                    File: USPT            May 2, 2000

US-PAT-NO: 6058385
DOCUMENT-IDENTIFIER: US 6058385 A

TITLE: Simultaneous evolution of the architecture of a multi-part program while
solving a problem using architecture altering operations

DATE-ISSUED: May 2, 2000

INVENTOR-INFORMATION:
| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Koza; John R. | Los Altos Hills | CA | 94022 | |
| Andre; David | Menlo Park | CA | 94025 | |
| Tackett; Walter Alden | San Francisco | CA | 94118 | |

US-CL-CURRENT: 706/13

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

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☐   18.   Document ID: US 6052678 A

L2: Entry 18 of 30                    File: USPT            Apr 18, 2000

US-PAT-NO: 6052678
DOCUMENT-IDENTIFIER: US 6052678 A
** See image for Certificate of Correction **

TITLE: Problem solving operation apparatus using a state transition

DATE-ISSUED: April 18, 2000

INVENTOR-INFORMATION:
| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Itoh; Hiroyasu | Kawasaki | | | JP |
| Shinagawa; Akio | Kawasaki | | | JP |
| Nishimura; Toshihiro | Kawasaki | | | JP |
| Okada; Hiroyuki | Kawasaki | | | JP |
| Adachi; Nobue | Kawasaki | | | JP |
| Ohi; Hajime | Tokyo | | | JP |

US-CL-CURRENT: 706/13; 706/20, 706/45

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

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☐   19.   Document ID: US 5946674 A

L2: Entry 19 of 30                    File: USPT            Aug 31, 1999

US-PAT-NO: 5946674

DOCUMENT-IDENTIFIER: US 5946674 A

TITLE: Turing complete computer implemented machine learning method and system

DATE-ISSUED: August 31, 1999

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Nordin; Peter | Goteborg | | | SE |
| Banzhaf; Wolfgang | Castrop-Rauxel | | | DE |

US-CL-CURRENT: 706/13

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

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□ 20.  Document ID: US 5946673 A

L2: Entry 20 of 30                    File: USPT                    Aug 31, 1999

US-PAT-NO: 5946673
DOCUMENT-IDENTIFIER: US 5946673 A

TITLE: Computer implemented machine learning and control system

DATE-ISSUED: August 31, 1999

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Francone; Frank D. | Los Angeles | CA | 90029 | |
| Nordin; Peter | S-411 05 Gothenburg | | | SE |
| Banzhaf; Wolfgang | Castrop-Rauxel | | | DE |

US-CL-CURRENT: 706/13; 700/246, 701/301

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

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□ 21.  Document ID: US 5897629 A

L2: Entry 21 of 30                    File: USPT                    Apr 27, 1999

US-PAT-NO: 5897629
DOCUMENT-IDENTIFIER: US 5897629 A

TITLE: Apparatus for solving optimization problems and delivery planning system

DATE-ISSUED: April 27, 1999

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Shinagawa; Akio | Kawasaki | | | JP |

Okada; Hiroyuki              Kawasaki                              JP
Nakabayashi; Ayumi           Tokyo                                 JP
Takada; Kazumi               Tokyo                                 JP

US-CL-CURRENT: 706/13

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

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☐ 22.   Document ID: US 5864633 A

L2: Entry 22 of 30                    File: USPT                    Jan 26, 1999

US-PAT-NO: 5864633
DOCUMENT-IDENTIFIER: US 5864633 A
** See image for Certificate of Correction **

TITLE: Method and apparatus for optical data analysis

DATE-ISSUED: January 26, 1999

INVENTOR-INFORMATION:
NAME                         CITY          STATE   ZIP CODE   COUNTRY
Opsal; Jon                   Livermore     CA
Sidorowich; John J.          Aptos         CA

US-CL-CURRENT: 382/141; 706/13

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

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☐ 23.   Document ID: US 5841947 A

L2: Entry 23 of 30                    File: USPT                    Nov 24, 1998

US-PAT-NO: 5841947
DOCUMENT-IDENTIFIER: US 5841947 A

TITLE: Computer implemented machine learning method and system

DATE-ISSUED: November 24, 1998

INVENTOR-INFORMATION:
NAME             CITY                    STATE   ZIP CODE   COUNTRY
Nordin; Peter    S-411 05 Goteborg                          SE

US-CL-CURRENT: 706/13

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

□   24.   Document ID:  US 5742738 A

L2: Entry 24 of 30                          File: USPT                    Apr 21, 1998

US-PAT-NO: 5742738
DOCUMENT-IDENTIFIER: US 5742738 A

TITLE: Simultaneous evolution of the architecture of a multi-part program to solve
a problem using architecture altering operations

DATE-ISSUED: April 21, 1998

INVENTOR-INFORMATION:
NAME                          CITY                STATE   ZIP CODE    COUNTRY
Koza; John R.                 Los Altos Hills     CA      94022
Andre; David                  Menlo Park          CA
Tackett; Walter Alden         San Francisco       CA

US-CL-CURRENT: 706/13

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

□   25.   Document ID:  US 5717787 A

L2: Entry 25 of 30                          File: USPT                    Feb 10, 1998

US-PAT-NO: 5717787
DOCUMENT-IDENTIFIER: US 5717787 A

TITLE: Method for data compression by associating complex numbers with files of
data values

DATE-ISSUED: February 10, 1998

INVENTOR-INFORMATION:
NAME                          CITY                STATE   ZIP CODE    COUNTRY
Feo; John Thomas              Dublin              CA
Hanks; David Carlton         San Ramon           CA
Kraay; Thomas Arthur         Leeburg             VA

US-CL-CURRENT: 382/232; 382/249, 706/13

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

□   26.   Document ID:  US 5651099 A

L2: Entry 26 of 30                          File: USPT                    Jul 22, 1997

US-PAT-NO: 5651099
DOCUMENT-IDENTIFIER: US 5651099 A

TITLE: Use of a genetic algorithm to optimize memory space

DATE-ISSUED: July 22, 1997

INVENTOR-INFORMATION:
| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Konsella; Shane | Boise | ID | | |

US-CL-CURRENT: 706/13; 707/1

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

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☐ 27.   Document ID: US 5434796 A

L2: Entry 27 of 30                    File: USPT                    Jul 18, 1995

US-PAT-NO: 5434796
DOCUMENT-IDENTIFIER: US 5434796 A

TITLE: Method and apparatus for designing molecules with desired properties by evolving successive populations

DATE-ISSUED: July 18, 1995

INVENTOR-INFORMATION:
| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Weininger; David | Santa Fe | NM | | |

US-CL-CURRENT: 703/12; 435/DIG.51, 706/13

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

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☐ 28.   Document ID: US 5390282 A

L2: Entry 28 of 30                    File: USPT                    Feb 14, 1995

US-PAT-NO: 5390282
DOCUMENT-IDENTIFIER: US 5390282 A

TITLE: Process for problem solving using spontaneously emergent self-replicating and self-improving entities

DATE-ISSUED: February 14, 1995

INVENTOR-INFORMATION:
| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Koza; John R. | Los Altos Hills | CA | 94022 | |
| Rice; James P. | Redwood City | CA | | |

US-CL-CURRENT: 706/13

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 29. Document ID: US 5343554 A

L2: Entry 29 of 30                    File: USPT                    Aug 30, 1994

US-PAT-NO: 5343554
DOCUMENT-IDENTIFIER: US 5343554 A

TITLE: Non-linear genetic process for data encoding and for solving problems using automatically defined functions

DATE-ISSUED: August 30, 1994

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Koza; John R. | Los Altos | CA | 94022 | |
| Rice; James P. | Redwood City | CA | | |

US-CL-CURRENT: 706/13

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 30. Document ID: US 5136686 A

L2: Entry 30 of 30                    File: USPT                    Aug 4, 1992

US-PAT-NO: 5136686
DOCUMENT-IDENTIFIER: US 5136686 A
** See image for Certificate of Correction **

TITLE: Non-linear genetic algorithms for solving problems by finding a fit composition of functions

DATE-ISSUED: August 4, 1992

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Koza; John R. | Los Altos Hills | CA | 94022 | |

US-CL-CURRENT: 706/13

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

| Terms | Documents |
|-------|-----------|
| | |

| | |
|---|---|
| L1 and fitness adj function and mathematical$4 | 30 |

**Display Format:** [ - ] [ Change Format ]

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# Hit List

## Search Results - Record(s) 1 through 4 of 4 returned.

☐  1.   Document ID:  US 20040254901 A1

**Using default format because multiple data bases are involved.**
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L4: Entry 1 of 4                        File: PGPB                  Dec 16, 2004

PGPUB-DOCUMENT-NUMBER: 20040254901
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040254901 A1

TITLE: Methods and systems for interactive evolutionary computing (IEC)

PUBLICATION-DATE: December 16, 2004

INVENTOR-INFORMATION:
NAME                           CITY          STATE   COUNTRY     RULE-47
Bonabeau, Eric                 Cambridge     MA      US
Anderson, Carl                 Cambridge     MA      US
Orme, Belinda                  Cambridge     MA      US
Funes, Pablo                   Cambridge     MA      US
Bandte, Oliver                 Cambridge     MA      US
Sullivan, Mark                 Cambridge     MA      US
Malinchek, Sergey              Cambridge     MA      US
Rothermich, Jeseph A.                                US

US-CL-CURRENT: 706/13
```

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐  2.   Document ID:  US 6148274 A
```
L4: Entry 2 of 4                        File: USPT                  Nov 14, 2000

US-PAT-NO: 6148274
DOCUMENT-IDENTIFIER: US 6148274 A
** See image for Certificate of Correction **

TITLE: Optimization adjusting method and optimization adjusting apparatus

DATE-ISSUED: November 14, 2000

INVENTOR-INFORMATION:
NAME                           CITY          STATE   ZIP CODE    COUNTRY
```

| | | | |
|---|---|---|---|
| Watanabe; Tatsumi | Kyoto | | JP |
| Takagi; Hideyuki | Fukuoka | | JP |
| Obara; Kazuaki | Neyagawa | | JP |
| Maruno; Susumu | Osaka | | JP |

US-CL-CURRENT: 703/6; 381/60, 706/13

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

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☐ · 3.  Document ID: US 6004015 A

L4: Entry 3 of 4                          File: USPT                  ·        Dec 21, 1999

US-PAT-NO: 6004015
DOCUMENT-IDENTIFIER: US 6004015 A
** See image for Certificate of Correction **

TITLE: Optimization adjusting method and optimization adjusting apparatus

DATE-ISSUED: December 21, 1999

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---|---|---|---|---|
| Watanabe; Tatsumi | Soraku-gun | | | JP |
| Takagi; Hideyuki | Fukuoka | | | JP |
| Obara; Kazuaki | Neyagawa | | | JP |
| Maruno; Susumu | Osaka | | | JP |

US-CL-CURRENT: 700/28; 702/85, 706/13

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

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☐ 4.  Document ID: US 5940816 A

L4: Entry 4 of 4                          File: USPT                          Aug 17, 1999

US-PAT-NO: 5940816
DOCUMENT-IDENTIFIER: US 5940816 A

TITLE: Multi-objective decision-support methodology

DATE-ISSUED: August 17, 1999

INVENTOR-INFORMATION:

| NAME | CITY · | STATE | ZIP CODE | COUNTRY |
|---|---|---|---|---|
| Fuhrer; Robert Mack | New York | NY | | |
| Henry; Raymond T. | Fishkill | NY | | |
| Akkiraju; Rama Kalyani T. | Ossining | NY | | |
| Lougee-Heimer; Robin | Ossining | NY | | |

```
Murthy; Seshashayee Sankarshana        Elmsford    NY
Rachlin; John Nathan                   Tarrytown   NY
Sturzenbecker; Martin C.               Carmel      NY
Wu; Frederick Yung-Fung                Cos Cob     CT
```

US-CL-CURRENT: <u>706/13</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

| Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS |

| Terms | Documents |
|---|---|
| L1 and evolution$4 and user and fitness adj function and solution adj set | 4 |

**Display Format:** `-`   Change Format

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# Hit List

## Search Results - Record(s) 1 through 5 of 5 returned.

☐   1.   Document ID:  US 20040254901 A1

**Using default format because multiple data bases are involved.**

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L5: Entry 1 of 5                        File: PGPB              Dec 16, 2004

PGPUB-DOCUMENT-NUMBER: 20040254901
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040254901 A1


TITLE: Methods and systems for interactive evolutionary computing (IEC)

PUBLICATION-DATE: December 16, 2004

INVENTOR-INFORMATION:
NAME                            CITY          STATE    COUNTRY      RULE-47
Bonabeau, Eric                  Cambridge     MA       US
Anderson, Carl                  Cambridge     MA       US
Orme, Belinda                   Cambridge     MA       US
Funes, Pablo                    Cambridge     MA       US
Bandte, Oliver                  Cambridge     MA       US
Sullivan, Mark                  Cambridge     MA       US
Malinchek, Sergey               Cambridge     MA       US
Rothermich, Jeseph A.                                  US


US-CL-CURRENT: 706/13
```

☐   2.   Document ID:  US 20040133355 A1

```
L5: Entry 2 of 5                        File: PGPB              Jul 8, 2004

PGPUB-DOCUMENT-NUMBER: 20040133355
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040133355 A1


TITLE: Methods and compositions utilizing evolutionary computation techniques and
differential data sets

PUBLICATION-DATE: July 8, 2004

INVENTOR-INFORMATION:
```

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|------|------|-------|---------|---------|
| Schneider, Luke V. | Palo Alto | CA | US | |

US-CL-CURRENT: 702/19; 702/20

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

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☐  3.  Document ID: US 20030055614 A1

L5: Entry 3 of 5                        File: PGPB                   Mar 20, 2003

PGPUB-DOCUMENT-NUMBER: 20030055614
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030055614 A1

TITLE: Method for optimizing a solution set

PUBLICATION-DATE: March 20, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|------|------|-------|---------|---------|
| Pelikan, Martin | Champaign | IL | US | |
| Goldberg, David E. | Champaign | IL | US | |

US-CL-CURRENT: 703/2

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

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☐  4.  Document ID: US 20020122067 A1

L5: Entry 4 of 5                        File: PGPB                   Sep 5, 2002

PGPUB-DOCUMENT-NUMBER: 20020122067
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020122067 A1

TITLE: System and method for automatic layout of images in digital albums

PUBLICATION-DATE: September 5, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|------|------|-------|---------|---------|
| Geigel, Joseph M. | Pittsford | NY | US | |
| Loui, Alexander C. | Penfield | NY | US | |

US-CL-CURRENT: 715/788

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

☐  5.   Document ID:  US 6408227 B1

L5: Entry 5 of 5                        File: USPT                    Jun 18, 2002

US-PAT-NO: 6408227
DOCUMENT-IDENTIFIER: US 6408227 B1

TITLE: System and method for controlling effluents in treatment systems

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:
| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Singhvi; Sanjay S. | Coralville | IA | | |
| Schnoor; Jerald L. | Iowa City | IA | | |

US-CL-CURRENT: 700/266; 700/32

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |

| Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS |

| Terms | Documents |
|-------|-----------|
| evolution$4 and user and fitness adj function and solution adj set and mathematical$4 | 5 |

**Display Format:** [ - ]  Change Format

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# Refine Search

## Search Results -

| Terms | Documents |
|---|---|
| evolution$4 and user and fitness adj function and solution adj set and mathematical$4 | 5 |

**Database:**
```
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins
```

**Search:**  `6,282,527.pn.`

[Refine Search]

[Recall Text]   [Clear]      [Interrupt]

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## Search History

**DATE:  Monday, December 20, 2004**    Printable Copy    Create Case

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=NO; OP=OR | | | |
| L5 | evolution$4 and user and fitness adj function and solution adj set and mathematical$4 | 5 | L5 |
| L4 | L1 and evolution$4 and user and fitness adj function and solution adj set | 4 | L4 |
| L3 | L1 and fitness adj function and mathematical$4 and solution adj set | 1 | L3 |
| L2 | L1 and fitness adj function and mathematical$4 | 30 | L2 |
| L1 | 706/13.ccls. | 233 | L1 |

END OF SEARCH HISTORY

# Refine Search

## Search Results -

| Terms | Documents |
|---|---|
| L9 and fitness adj function and mathematical$4 and solution adj set | 1 |

**Database:**
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US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins
```

**Search:**
```
L10
```

Refine Search

Recall Text ⬍     Clear         Interrupt

## Search History

**DATE:   Monday, December 20, 2004     Printable Copy     Create Case**

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| *DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=NO; OP=OR* | | | |
| L10 | L9 and fitness adj function and mathematical$4 and solution adj set | 1 | L10 |
| L9 | 702/19.ccls. | 1646 | L9 |
| L8 | L7 and fitness adj function and mathematical$4 and solution adj set | 0 | L8 |
| L7 | 706/20.ccls. | 528 | L7 |
| L6 | 6,282,527.pn. | 2 | L6 |
| L5 | evolution$4 and user and fitness adj function and solution adj set and mathematical$4 | 5 | L5 |
| L4 | L1 and evolution$4 and user and fitness adj function and solution adj set | 4 | L4 |
| L3 | L1 and fitness adj function and mathematical$4 and solution adj set | 1 | L3 |
| L2 | L1 and fitness adj function and mathematical$4 | 30 | L2 |
| L1 | 706/13.ccls. | 233 | L1 |

END OF SEARCH HISTORY

# Hit List

**Search Results - Record(s) 1 through 1 of 1 returned.**

☐ 1. Document ID: US 20040133355 A1

**Using default format because multiple data bases are involved.**

L10: Entry 1 of 1                    File: PGPB                    Jul 8, 2004

PGPUB-DOCUMENT-NUMBER: 20040133355
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040133355 A1

TITLE: Methods and compositions utilizing evolutionary computation techniques and differential data sets

PUBLICATION-DATE: July 8, 2004

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|------|------|-------|---------|---------|
| Schneider, Luke V. | Palo Alto | CA | US | |

US-CL-CURRENT: 702/19; 702/20

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |

| Terms | Documents |
|-------|-----------|
| L9 and fitness adj function and mathematical$4 and solution adj set | 1 |

**Display Format:** [ - ]    | Change Format |

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**Search Results - Record(s) 1 through 1 of 1 returned.**

☐ 1. Document ID: US 20030055614 A1

**Using default format because multiple data bases are involved.**

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L12: Entry 1 of 1                    File: PGPB                 Mar 20, 2003
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```
PGPUB-DOCUMENT-NUMBER: 20030055614
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030055614 A1
```

```
TITLE: Method for optimizing a solution set
```

```
PUBLICATION-DATE: March 20, 2003
```

```
INVENTOR-INFORMATION:
NAME                     CITY         STATE    COUNTRY      RULE-47
Pelikan, Martin          Champaign    IL       US
Goldberg, David E.       Champaign    IL       US
```

```
US-CL-CURRENT: 703/2
```

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

| Terms | Documents |
|---|---|
| L11 and fitness adj function and mathematical$4 and solution adj set | 1 |

**Display Format:** `-`  Change Format

Previous Page        Next Page        Go to Doc#

# Refine Search

## Search Results -

| Terms | Documents |
|---|---|
| L11 and fitness adj function and mathematical$4 and solution adj set | 1 |

**Database:**
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

**Search:** L12

[Refine Search]

[Recall Text] [Clear] [Interrupt]

## Search History

**DATE: Monday, December 20, 2004** Printable Copy Create Case

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| L12 | L11 and fitness adj function and mathematical$4 and solution adj set | 1 | L12 |
| L11 | 703/2.ccls. | 1253 | L11 |
| L10 | L9 and fitness adj function and mathematical$4 and solution adj set | 1 | L10 |
| L9 | 702/19.ccls. | 1646 | L9 |
| L8 | L7 and fitness adj function and mathematical$4 and solution adj set | 0 | L8 |
| L7 | 706/20.ccls. | 528 | L7 |
| L6 | 6,282,527.pn. | 2 | L6 |
| L5 | evolution$4 and user and fitness adj function and solution adj set and mathematical$4 | 5 | L5 |
| L4 | L1 and evolution$4 and user and fitness adj function and solution adj set | 4 | L4 |
| L3 | L1 and fitness adj function and mathematical$4 and solution adj set | 1 | L3 |
| L2 | L1 and fitness adj function and mathematical$4 | 30 | L2 |
| L1 | 706/13.ccls. | 233 | L1 |

END OF SEARCH HISTORY